

06-25-01

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PTO/SB/05 (11-00)

Approved for use through 10/31/2002. OMB 0651-0032

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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### UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. 42390P1625

(maximum 12 characters)

First Named Inventor Jack Hwang

Title: A METHOD OF MAKING A SEMICONDUCTOR TRANSISTOR BY IMPLANTING IONS INTO A GATE DIELECTRIC LAYER THEREOF

Express Mail Label No. EL627469947US

ADDRESS TO: Assistant Commissioner for Patents  
Box Patent Application  
Washington, D. C. 20231

### APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. X Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original, and a duplicate for fee processing)
2.        Applicant Claims Small Entity Status. (37 CFR 1.27)
3. X Specification (Total Pages 20)  
(preferred arrangement set forth below)
  - Descriptive Title of the Invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. X Drawings(s) (35 USC 113) (Total Sheets 5)
5. X Oath or Declaration (Total Pages 5)
  - a.        Newly Executed (Original or Copy)
  - b.        Copy from a Prior Application (37 CFR 1.63(d))  
(for Continuation/Divisional with Box 17 completed)
    - i.        DELETIONS OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
  - c. X Unsigned.
6. X Application Data Sheet. (37 CFR 1.76)
7.        CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8.        Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)
  - a.        Computer Readable Form (CRF)
  - b.        Specification Sequence Listing on:
    - i.        CD-ROM or CD-R (2 copies); or
    - ii.        paper
  - c.        Statement verifying identity of above copies

06/22/01  
JC839 U.S. PTO

JC872 U.S. PTO  
09/887910  
06/22/01

09887910 062201

**SECRET**

- 18A. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:**

**Applicant(s):** Also include a Preliminary Amendment to amend the specification to claim priority. For CONTINUATION AND DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

The undersigned states that \_\_\_\_\_ (name of assignee) is the assignee of the entire right, title, and interest in the accompanying patent application by virtue of an assignment recorded in the Patent and Trademark Office at Reel No. \_\_\_\_\_ Frame No. \_\_\_\_\_ (or a copy of which is attached).

Name (PRINT/TYPE): Stephen M. De Klerk Registration No.: A6.503  
Signature: *Stephen M. De Klerk* Date: 6/22/01

## EXPRESS MAIL CERTIFICATE OF MAILING

"Express Mail" mailing label number: EL627469947US

Date of Deposit: June 22, 2001

I hereby certify that I am causing this paper or fee to be deposited with the United States Postal Service "Express Mail Post Office to Addressee" service on the date indicated above and that this paper or fee has been addressed to the Assistant Commissioner for Patents, Washington, D. C. 20231

Deborah A. McGovern  
(Typed or printed name of person mailing paper or fee)

DMcGovern  
(Signature of person mailing paper or fee)

June 22, 2001  
(Date signed)

Serial/Patent No.: Not Yet Assigned Filing/Issue Date: Herewith

Client: Intel Corporation

Title: A METHOD OF MAKING A SEMICONDUCTOR TRANSISTOR BY IMPLANTING IONS INTO A GATE DIELECTRIC LAYER THEREOF

BSTZ File No.: 42390P10625 Atty/Secty Initials: SMD/dam

Date Mailed: June 22, 2001 Docket Due Date: \*\*\*

The following has been received in the U.S. Patent & Trademark Office on the date stamped hereon:

|  |  |  |
|--|--|--|
| <input type="checkbox"/> Amendment/Response (____ pgs.)  | <input checked="" type="checkbox"/> Express Mail No. <u>EL627469947US</u>            | <input checked="" type="checkbox"/> Check No. <u>43632</u> |
| <input type="checkbox"/> Appeal Brief (____ pgs.) (in triplicate)                                    | <input type="checkbox"/> _____ Month(s) Extension of Time                            | Amt: <u>\$746.00</u>                                       |
| <input checked="" type="checkbox"/> Application - Utility ( <u>20</u> pgs., with cover and abstract) | <input type="checkbox"/> Information Disclosure Statement & PTO-1449 (____ pgs.)     | <input type="checkbox"/> Check No. _____                   |
| <input type="checkbox"/> Application - Rule 1.53(b) Continuation (____ pgs.)                         | <input type="checkbox"/> Issue Fee Transmittal                                       | Amt: _____   |
| <input type="checkbox"/> Application - Rule 1.53(b) Divisional (____ pgs.)                           | <input type="checkbox"/> Notice of Appeal  |  |
| <input type="checkbox"/> Application - Rule 1.53(b) CIP (____ pgs.)                                  | <input type="checkbox"/> Petition for Extension of Time                              |  |
| <input type="checkbox"/> Application - Rule 1.53(d) CPA Transmittal (____ pgs.)                      | <input type="checkbox"/> Petition for _____  |  |
| <input type="checkbox"/> Application - Design (____ pgs.)  | <input checked="" type="checkbox"/> Postcard   |  |
| <input type="checkbox"/> Application - PCT (____ pgs.)   | <input type="checkbox"/> Power of Attorney (____ pgs.)                               |  |
| <input type="checkbox"/> Application - Provisional (____ pgs.)                                       | <input type="checkbox"/> Preliminary Amendment (____ pgs.)                           |  |
| <input type="checkbox"/> Assignment and Cover Sheet  | <input type="checkbox"/> Reply Brief (____ pgs.)                                     |  |
| <input checked="" type="checkbox"/> Certificate of Mailing   | <input type="checkbox"/> Response to Notice of Missing Parts                         |  |
| <input checked="" type="checkbox"/> Declaration & POA ( <u>5</u> pgs.) <u>unexecuted</u>             | <input type="checkbox"/> Small Entity Declaration for Indep. Inventor/Small Business |  |
| <input type="checkbox"/> Disclosure Docs & Orig & Copy of Invention Signed Later (____ pgs.)         | <input checked="" type="checkbox"/> Transmittal Letter, in duplicate                 |  |
| <input checked="" type="checkbox"/> Drawings: <u>5</u> # of sheets includes <u>8</u> figures         | <input checked="" type="checkbox"/> Fee Transmittal, in duplicate                    |  |

☒ Other: Application Data Sheet, Copy of postcard with Certificate of Express Mailing pursuant to C.F.R. §1.10

## FEE TRANSMITTAL FOR FY 2001

TOTAL AMOUNT OF PAYMENT (\$) 746.00

**Complete if Known:**

Application No. Not Yet Assigned  
Filing Date Herewith  
First Named Inventor Jack Hwang  
Group Art Unit Not Yet Assigned  
Examiner Name Not Yet Assigned  
Attorney Docket No. 42390P10625

**METHOD OF PAYMENT (check one)**

1. ☒ [ X ] The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Deposit Account Number 02-2666  
Deposit Account Name \_\_\_\_\_

- ☒ [ X ] Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

- ☐ [ ] Applicant claims small entity status. See 37 CFR 1.27

2. X Payment Enclosed: X Check  
Credit Card  
Money Order  
Other

**FEE CALCULATION**

**1. BASIC FILING FEE**

| Large Entity |          | Small Entity |          | Fee Description                    | Fee Paid      |
|--------------|----------|--------------|----------|------------------------------------|---------------|
| Code         | Fee (\$) | Code         | Fee (\$) |                                    |               |
| 101          | 710      | 201          | 355      | Utility application filing fee     | <u>710.00</u> |
| 106          | 320      | 206          | 160      | Design application filing fee      | _____         |
| 107          | 490      | 207          | 245      | Plant filing fee                   | _____         |
| 108          | 710      | 208          | 355      | Reissue filing fee                 | _____         |
| 114          | 150      | 214          | 75       | Provisional application filing fee | _____         |

SUBTOTAL (1) \$ 710.00

**2. EXTRA CLAIM FEES**

|                    |           |          |          | Extra Claims | Fee from below | Fee Paid       |
|--------------------|-----------|----------|----------|--------------|----------------|----------------|
| Total Claims       | <u>22</u> | - 20** = | <u>2</u> | X            | <u>18.00</u>   | = <u>36.00</u> |
| Independent Claims | <u>3</u>  | - 3** =  | <u>0</u> | X            | _____          | = <u>0</u>     |
| Multiple Dependent |           |          |          |              | _____          | = _____        |

\*\*Or number previously paid, if greater; For Reissues, see below.

| Large Entity |          | Small Entity |          | Fee Description   |
|--------------|----------|--------------|----------|---|
| Code         | Fee (\$) | Code         | Fee (\$) |   |
| 103          | 18       | 203          | 9        | Claims in excess of 20                                    |
| 102          | 80       | 202          | 40       | Independent claims in excess of 3                         |
| 104          | 270      | 204          | 135      | Multiple dependent claim, if not paid                     |
| 109          | 80       | 209          | 40       | **Reissue independent claims over original patent         |
| 110          | 18       | 210          | 9        | **Reissue claims in excess of 20 and over original patent |

SUBTOTAL (2) \$ 36.00

T02230" 01628860

# FEE CALCULATION (continued)

## 3. ADDITIONAL FEES

| <u>Large Entity</u> |                 | <u>Small Entity</u> |                 | <u>Fee Description</u>   | <u>Fee Paid</u> |
|---------------------|-----------------|---------------------|-----------------|--|-----------------|
| <u>Fee Code</u>     | <u>Fee (\$)</u> | <u>Fee Code</u>     | <u>Fee (\$)</u> |  |                 |
| 105                 | 130             | 205                 | 65              | Surcharge - late filing fee or oath  | _____           |
| 127                 | 50              | 227                 | 25              | Surcharge - late provisional filing fee or cover sheet                     | _____           |
| 139                 | 130             | 139                 | 130             | Non-English specification  | _____           |
| 147                 | 2,520           | 147                 | 2,520           | For filing a request for ex parte reexamination                            | _____           |
| 112                 | 920*            | 112                 | 920*            | Requesting publication of SIR prior to Examiner action                     | _____           |
| 113                 | 1,840*          | 113                 | 1,840*          | Requesting publication of SIR after Examiner action                        | _____           |
| 115                 | 110             | 215                 | 55              | Extension for reply within first month                                     | _____           |
| 116                 | 390             | 216                 | 195             | Extension for reply within second month                                    | _____           |
| 117                 | 890             | 217                 | 445             | Extension for reply within third month                                     | _____           |
| 118                 | 1,390           | 218                 | 695             | Extension for reply within fourth month                                    | _____           |
| 128                 | 1,890           | 228                 | 945             | Extension for reply within fifth month                                     | _____           |
| 119                 | 310             | 219                 | 155             | Notice of Appeal   | _____           |
| 120                 | 310             | 220                 | 155             | Filing a brief in support of an appeal                                     | _____           |
| 121                 | 270             | 221                 | 135             | Request for oral hearing   | _____           |
| 138                 | 1,510           | 138                 | 1,510           | Petition to institute a public use proceeding                              | _____           |
| 140                 | 110             | 240                 | 55              | Petition to revive - unavoidable   | _____           |
| 141                 | 1,240           | 241                 | 620             | Petition to revive - unintentional   | _____           |
| 142                 | 1,240           | 242                 | 620             | Utility issue fee (or reissue)   | _____           |
| 143                 | 440             | 243                 | 220             | Design issue fee   | _____           |
| 144                 | 600             | 244                 | 300             | Plant issue fee  | _____           |
| 122                 | 130             | 122                 | 130             | Petitions to the Commissioner  | _____           |
| 123                 | 50              | 123                 | 50              | Processing fee under 37 CFR 1.17(q)  | _____           |
| 126                 | 180             | 126                 | 180             | Submission of Information Disclosure Stmt                                  | _____           |
| 581                 | 40              | 581                 | 40              | Recording each patent assignment per property (times number of properties) | _____           |
| 146                 | 710             | 246                 | 355             | For filing a submission after final rejection (see 37 CFR 1.129(a))        | _____           |
| 149                 | 710             | 249                 | 355             | For each additional invention to be examined (see 37 CFR 1.129(b))         | _____           |
| 179                 | 710             | 279                 | 355             | Request for Continued Examination (RCE)                                    | _____           |
| 169                 | 900             | 169                 | 900             | Request for expedited examination of a design application                  | _____           |
| 195                 | 300             | 195                 | 300             | Publication fee for early, voluntary, or normal publication                | _____           |
| 196                 | 300             | 196                 | 300             | Publication fee for republication  | _____           |
| 194                 | 130             | 194                 | 130             | Request for voluntary publication or republication                         | _____           |
| 098                 | 130             | 098                 | 130             | Processing fee under 37 CFR 1.17(i)  | _____           |
| 091                 | 1,240           | 091                 | 1,240           | Acceptance of unintentionally delayed claim for priority                   | _____           |

Other fee (specify) \_\_\_\_\_

Other fee (specify) \_\_\_\_\_

SUBTOTAL (3) \$ \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

## SUBMITTED BY:

Typed or Printed Name: Stephen M. De Klerk

Signature: *Stephen M. De Klerk* Date: 6/22/01

Reg. Number: 46,503 Telephone Number: 408-720-8300

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